

MDF-U76VC-PA | MDF-U76VA-PA

VIP® Series

-86°C Ultra-Low Temperature Upright Freezer

25.7 cu.ft. | 728 L



MDF-U76VC-PA



VIP Series ultra-low temperature freezers are designed for safe, reliable storage of biologicals. Energy efficiency in VIP Series freezers is achieved through balanced temperature performance and power management. The advanced combination of cabinet design, electronics, refrigeration and critical components are engineered for enhanced security, performance and reliability.

Reliability You Can Count On

The robust refrigeration system is powered by specially engineered compressors. The system provides dependable cooling by balancing temperature performance and energy management. Reserve refrigeration power assures exceptional temperature recovery following door openings. VIP freezers have demonstrated >99% reliability with excellent performance history.

Maximum Storage, Minimal Footprint

The upright freezer employs a patented VIP Plus insulation composite that maximizes space efficiency and holds up to 576 2" boxes or 384 3" boxes within a 9.48 ft² (0.88 m²) footprint.

Uniform Preservation

The combination of patented VIP vacuum insulation panels with compressors specifically designed for ultra-low temperature applications, assures superior uniformity (+/- 5°C) throughout the cabinet to maintain the integrity of the samples.



Microprocessor Controls/Alarms

Integrated microprocessor-based controller and LED display include comprehensive setpoint, alarms, monitoring, diagnostic and communication features.*

*Control panel color & appearance may vary per equipment model.



Optimum Sample Storage

This space saving cabinet design offers a reduced wall thickness for maximum interior volume. Ideal for storage of DNA, RNA and other biological samples.



Extra Protection, Easy Access

The stainless steel framed, insulated inner doors with gasket seal firmly against the cabinet to help minimize change in interior temperatures during routine door openings. Inner door latches feature an ergonomic design for one-handed operation.

VIP Series -86°C ULT Upright Freezer

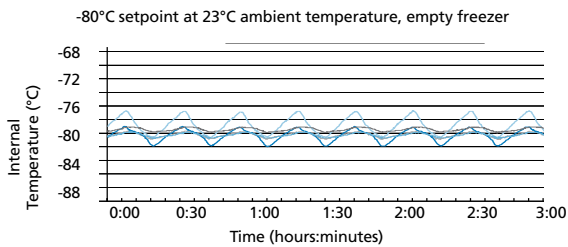
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VIP Plus Vacuum Insulated Panels

Inside-out engineering starts with a patented VIP Plus insulation composite which results in an efficient, thin-wall cabinet. Insulated inner doors improve temperature uniformity, minimize cold air loss during door openings and extend warm-up times during power outages.

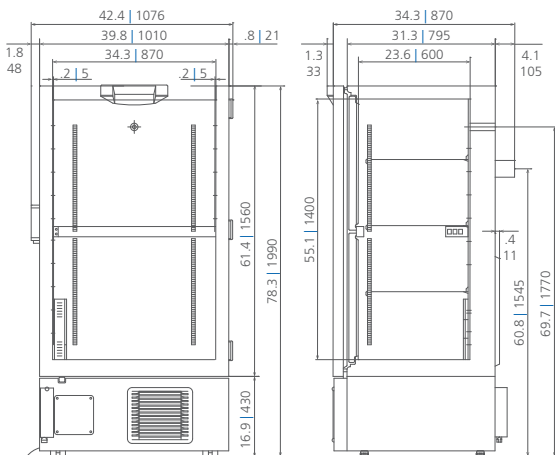
Temperature Uniformity Data



As interior air temperature stabilizes at the desired setpoint, mass storage volume sustains tight temperature uniformity of the load inside the insulated cabinet.

Dimensions

Unit : inch | mm



Model Number		MDF-U76VC-PA	MDF-U76VA-PA
External Dimensions (W x D x H) ¹⁾	inches mm	39.8 x 34.3 x 78.3 1010 x 870 x 1990	
Internal Dimensions (W x D x H)	inches mm	34.3 x 23.6 x 55.1 870 x 600 x 1400	
Volume	cu.ft. liters	25.7 728	
Net Weight	lbs. kg	805 365	816 370
Capacity (2" boxes)	qty	576	
Capacity (3" boxes)	qty	384	
Inventory Racks (2" boxes)	qty	24	
Inventory Racks (3" boxes)	qty	24	
Performance			
Warranty		5 years parts and labor ²⁾	
Cooling Performance ³⁾	°C	-86	
Temperature Setting Range	°C	-50 to -90 in 1°C increments	
Temperature Control Range ³⁾	°C	-50 to -86 in 1°C increments	
Control			
Controller		Microprocessor, touchpad data entry with display lockout	
Display		LED	
Temperature Sensor		Pt-1000	
Refrigeration			
Refrigeration System		Cascade	
Compressors	W	(1) 750 High-Stage and (1) 1100 Low-Stage	
Refrigerant		CFC-free R-404A and R-508B	
Insulation Material		Rigid polyurethane foam (PUF) + VIP Plus	
Construction			
Exterior & Interior Material		Painted steel	
Outer Door	qty	1	
Outer Door Lock		Standard	
Inner Doors	qty	2 insulated, ABS, w/ stainless steel frame and positive latches	
Shelves	qty	3	
Shelf Dimensions (W x D)	inches mm	33.4 x 21.0 848 x 533	
Max. Load - per Shelf	lbs kg	110 50	
Max. Load - Total Freezer	lbs kg	440 200	
Vacuum Release Port		Standard	
Access Ports	qty	2	
Access Port Position		Back wall and chamber floor	
Access Port Diameter	inches mm	0.6 17	
Casters	qty	4 (2 leveling feet on front base)	
Alarms (V = Visual Alarm, B = Buzzer Alarm, R = Remote Alarm)			
Power Failure		V-B-R	
High Temperature		V-B-R	
Low Temperature		V-B-R	
Filter		V-B	
Door Open		V-B	
Electrical and Noise Level			
Power Supply		208V-230V, 1Ø, NEMA 6-15P, requires NEMA 6-15R receptacle	115V, 1Ø, NEMA 5-20P, requires NEMA 5-20R receptacle
Frequency	Hz	60	
Noise Level ⁴⁾	dB (A)	49	
Options			
Small Inner Door Kit	set of 2 (total of 4 inner doors)	MDF-7ID-PW (max 2) ⁵⁾	
Liquid CO ₂ Back-up System		CKV-UB2I-PW	
Temperature Recorder			
Circular Type	6", 7 day circular	MTRC954	
Chart Paper	52 charts per box	C7100386REV	
Ink Pen	pack of 6	R252	
Optional Communication System			
Wireless, cloud-based, automatic data management		LabAlert® Monitoring System	

¹⁾ Exterior dimensions of main cabinet only, excluding handle and other external projections

²⁾ Current warranty offered at time of printing and may be subject to change; US and Canada only

³⁾ Air temperature measured at freezer center, ambient temperature +30°C, no load

⁴⁾ Nominal value - Background noise 20dB(A)

⁵⁾ Installation of small inner door kit may affect usable storage capacity

Specifications are subject to change without notice. For latest specification information contact PHC Corporation of North America at info@us.phcd.com. Performance data herein is based on independent testing at time of publication.



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